

REMARKS

Applicant appreciates the time taken by the Examiner to review Applicant's present application. Applicant has amended Claims 1, 3, 5, 12, 14, 16, 23, 25 and 27 and cancelled Claims 2, 13 and 24. Applicant respectfully submits that these amendments add no new matter. Thus, Claims 1, 3-12, 14-23 and 25-33 remain pending. This application has been carefully reviewed in light of the Official Action mailed March 12, 2007. Applicant respectfully requests reconsideration and favorable action in this case.

Specification Objections

The Examiner objected to Paragraph 1 of the specification. Applicant has amended Paragraph 1 by filling in the blank space with the appropriate application number. Accordingly, Applicant respectfully requests the withdrawal of this objection.

Claim Objections

Claim 13 stands currently objected to due to an informality. More specifically, the period was missing at the end of the claim. Applicant has cancelled Claim 13. Accordingly, Applicant respectfully submits that this objection is now moot.

Rejections under 35 U.S.C. § 112

Claim 2 stands rejected under 35 U.S.C. § 112, first paragraph. Applicant has cancelled Claim 2. Accordingly, Applicant respectfully submits that this objection is now moot.

Rejections under 35 U.S.C. § 103

Claims 1, 2, 5, 12, 13, 16 and 23, 24, and 27 stand rejected as obvious over U.S. Patent No. No. 5,668,801 ("Grünen") in view of U.S. Patent No. 6,453,336 ("Beyda"). Claims 3, 4, 6-11, 14, 15, 17-22, 25, 26, and 28-33 stand rejected as obvious over Grünen in view of Beyda as applied to Claims 2, 13 and 24, and further in view of U.S. Publication No. 20060271989 by Glaser ("Glaser"). Applicant has cancelled Claims 2, 13 and 24 and thus the rejection of these claims is now moot.

With respect to the remainder of the pending claims, in order to establish a prima facie case of obviousness, the Examiner must show: that the prior art references teach or suggest all of the claim limitations; that there is some suggestion or motivation in the references (or within

the knowledge of one of ordinary skill in the art) to modify or combine the references; and that there is a reasonable expectation of success. M.P.E.P. 2142, 2143; In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

The Applicant respectfully points out that the Examiner has failed to establish a prima facie case of obviousness. More specifically, the Examiner has not shown that each of the claim limitations is present in the references, nor has the Examiner shown that there is any reasonable expectation of success. Consequently, the rejection must fail.

Claims 1, 12 and 23

Claim 1, as amended, recites a method for detecting gaps in data, comprising: defining a first stream and a second stream from a network topology, wherein each of the streams is a logical data source comprising a grouping of one or more physical components of the network topology or one or more logical groupings associated with the network topology; associating incoming data with one of the streams based on a source of the incoming data; calculating a data loss for each stream wherein the data loss is calculated between a next event and a last event in the stream; and processing each stream based upon the calculated data loss. Claims 12 and 23 recite similar limitations.

Thus, an embodiment of the present invention may allow data produced in conjunction with the function of a network topology (such as a network which implements a web site) to be grouped according to the layout or organization of the network topology itself by defining streams based on the network topology. These streams may in turn, be associated with one or more logical data sources. These logical data sources may be defined based on groupings of physical components of the network topology or logical groupings associated with the network topology (e.g. such as application(s) executing on multiple physical devices, etc.). Consequently, the logical data sources may be defined based on the functionality (e.g. desired or actual) or layout of the network topology, not necessarily just on the physical components of the network.

Accordingly, when data is received, in one embodiment of the present invention it may be associated with one or more of the defined streams. Each of these data streams may then be processed. One embodiment of the present invention may process these data streams substantially in parallel to detect any gaps in each of the data streams. It may be determined that a gap has occurred in conjunction with a stream when no data associated with that stream has been received for a certain time period.

More specifically, in one embodiment, the processing of data associated with all streams is halted when data associated with any one stream has not been received, if no more data associated with a particular stream is received within the certain time period it can be determined that a gap in that stream has occurred and remedial action may be taken, including the notification of a user or the continuation of processing of data associated with other streams after the passage of another time period, prompting by a user, etc.

Grünen

Grünen discloses a method for testing an ATM switching unit which comprises a parameter monitor. (See Grünen, Col. 3, Lines 12-15, 24, FIG. 1) In Grünen a test generator is connected to an interface at the input of the switching unit. The test generator emits a stream of cells (i.e. digital data units) destined for test analyzer connected to an interface at the output of the switching unit. The stream of cells is emitted by the test generator in a manner which causes the parameter monitor to react intermittently. The parameter monitor using a timing algorithm to discard certain of the cells. Thus, by analyzing the stream of cells received at test analyzer a reliable picture of the cells discarded as non-conforming by the parameter can be gleaned. (See Grünen, Col. 3, Lines 20-55)

Thus, in Grünen the stream refers to a set of cells (digital data units) which are produced by one particular physical device, a test generator and received by one particular physical device, a test analyzer. As such, the stream of Grünen is not equivalent to the stream as recited in Claim 1 for a variety of reasons. First and foremost the stream of Grünen is not defined from a network topology. Additionally, as the stream of Grünen is just a set of cells from one particular physical device (test generator), the stream of Grünen is not a logical data source which can comprise a grouping of one or more physical components of the network topology or one or more logical groupings associated with the network topology. As can be seen then, as the stream of Grünen refers to a specific set of cells produced by a test generator, Grünen does not disclose the limitation of Claim 1 which recites defining a first stream and a second stream from a network topology, wherein each of the streams is a logical data source comprising a grouping of one or more physical components of the network topology or one or more logical groupings associated with the network topology.

Furthermore, as Grünen does not disclose streams which are logical data source there is no need to associated incoming data with a stream and indeed Grünen does not disclose the association of incoming data with streams based on a source of the incoming data as recited by

Claim 1. Accordingly, the withdrawal of the rejections of Claims 1, 12 and 23 is respectfully requested.

Claims 3, 14 and 25

Claims 3 recites the method of Claim 1, further comprising stopping the processing of every stream if the first or second stream's calculated data loss is greater than a first user defined threshold. Claims 14 and 25 recite similar limitations. Thus, Applicant respectfully believes that the above arguments presented with respect to Claim 1 above apply equally well here.

Additionally, the Examiner cites Glaser at paragraph [0012] for the limitation of Claim 3 which recites stopping the processing of every stream if the first or second stream's calculated data loss is greater than a first user defined threshold. Paragraph [0012] of Glaser recites:

Furthermore, data buffers of reasonable size should be allocated within the dynamic random access memory (DRAM) of a conventional 486 Intel based personal computer in order to avoid deleterious effects on computer performance. Thus, typically, buffer memories are allocated within the DRAM to have on the order of approximately 16 or 32 kilobytes of storage. If digitized audio data is transmitted and received within the data buffer at too fast a rate, the buffers would overflow causing the loss of significant portions of data and audio dropout. As is well known in the art, audio dropout is a phenomena wherein audio playback terminates for some noticeable time period and then resumes after this delay. On the other hand, if data was transmitted too slowly, then the buffers would empty out again resulting in significant dropout and degradation of audio quality. Thus, a number of significant difficulties are encountered when attempting to implement a real time audio-on-demand system within a 486 CPU based personal computer system, or other similar personal computer systems. Thus, the present invention provides a method of monitoring and regulating the flow of data between the server and the subscriber unit which insures that the buffers are constantly maintained at or near maximum capacity.

Thus, paragraph [0012] of Glaser only discloses that buffers may overflow if data received at too fast a rate or buffers may empty out if data is transmitted too slowly and that the invention of Glaser strives to maintain buffers at or near maximum capacity.

Paragraph [0012] of Glaser does not disclose any of the following:

- 1) That buffers correspond to streams, where streams are associated with one or more logical data sources;
- 2) Any type of user defined threshold;

3) That processing of data contained with any one buffer is stopped if a gap is detected in the data; or

4) That the processing of data in one buffer is contingent in any way on the amount of data in, or gaps within the data of, any other buffer.

As such Applicant respectfully submits that Glaser does not disclose the limitation of Claim 3 which recites stopping the processing of every stream if the first or second stream's calculated data loss is greater than a first user defined threshold. If the Examiner disagrees with this assessment of Glaser Applicant respectfully submits that the Examiner point out with specificity the portions of Glaser which the Examiner believes discloses this limitation.

Moreover, even assuming arguendo that Glaser discloses the limitation of Claim 3 which the Examiner asserts that it does, the combination of the Grünen, Beyda and Glaser references would result in an system unsuitable for its desired purpose. More specifically, the Examiner recites that it would be desirable to combine the teachings of the Grünen with the teachings of Beyda in order to conduct personal computer based video conferencing and that it would further have been desirable to modify the teachings of Grünen and Beyda in order to provide real-time playback of audio data.

If, however, as asserted by the Examiner Glaser discloses that the processing of every stream is stopped if the first or second stream's calculated data loss is greater than a first user defined threshold the combination of the three references would result in a system in which all data (e.g. both audio and video data) would cease to be processed anytime a calculated loss is greater than a first user defined threshold. This cessation of processing would result in the video conference call being dropped, an undesirable result with respect to virtually all video conferencing systems. Thus, even if Glaser discloses stopping the processing of every stream if the first or second stream's calculated data loss is greater than a first user defined threshold (which it does not) the combination of the of Grünen, Beyda and Glaser references would not enjoy a reasonable expectation of success.

Accordingly, as the combination of Grünen, Beyda and Glaser does not disclose all the limitation of Claim 3 and additionally does not enjoy a reasonable expectation of success, a case for obviousness has not been made with respect to Claim 3. Accordingly, the withdrawal of the rejection of Claims 3 and similar Claims 14 and 25 is respectfully requested.

Claims 4-11, 15-22 and 26-33

Applicant believes that the above arguments presented with respect to Claims 1 and 3 apply equally well to Claims 4-11, 15-22 and 26-33 and respectfully requests the withdrawal of the rejection of these claims.


CONCLUSION

Applicant has now made an earnest attempt to place this case in condition for allowance. Other than as explicitly set forth above, this reply does not include an acquiescence to statements, assertions, assumptions, conclusions, or any combination thereof in the Office Action. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully requests full allowance of Claims 1, 3-12, 14-23 and 25-33. The Examiner is invited to telephone the undersigned at the number listed below for prompt action in the event any issues remain.

The Director of the U.S. Patent and Trademark Office is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-3183 of Sprinkle IP Law Group.

Respectfully submitted,

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